

REMARKS

Claims 1-19 currently are pending. Claims 1-5, 7, 8 and 10-15 have been amended; claims 16-19 have been added.

35 USC § 112/101

Claims 7, 8, 12, 14, and 15 are rejected because they were use claims. Applicants amend these claims so that now they fall into a proper statutory category.

Claims 3-5 and 13 are indefinite because they recite “and/or.” Applicants amend these claims to overcome the rejection.

Claim objections

Claims 10 and 11 were objected to under 37 CFR 1.75(c) because they read like process or method claims and cannot depend from a composition claim. Applicants amend claims 10 and 11 into process claims. New claims 18 and 19 are added to cover fully the subject matter of claims 10 and 11.

35 USC § 103

Claims 1-15 were rejected under 35 USC § 103(a) as being unpatentable over Peffly et al. (US 5,972,356). The examiner believes that although Peffly does not teach the specific ranges taught in the prior art the claimeds overlap or lie inside ranges disclosed by Peffly.

Peffly et al. discuss personal care compositions comprising **silicone graft** copolymers. To overcome Peffly et al. applicants delete the monomer (d) from claim 1. Therefore, the present invention now relates to cationic polymers obtained by free-

radical copolymerization of (a), (b) and (c) but not (d). Addition of other monomers which are not (d) is not excluded.

For the reasons expressed above, it is urged that the prior art references cited by the examiner either singly or in combination fail to anticipate or suggest the present invention as defined by the amended claims. Accordingly, a *prima facie* case of obviousness has not been established by the examiner, and the rejection under 35 USC § 103 should be withdrawn.

Attached is a check for \$110.00 for the one-month extension.

Please charge any shortage in fees due in connection with the filing of this paper, including Extension of Time fees to Deposit Account No. 11-0345. Please credit any excess fees to such deposit account.

Respectfully submitted,

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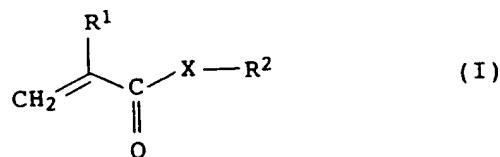
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

1. (amended) A cationic polymer [obtainable] obtained by free-radical copolymerization of

(a) from 50 to 70% by weight of one or more monomers of the formula I

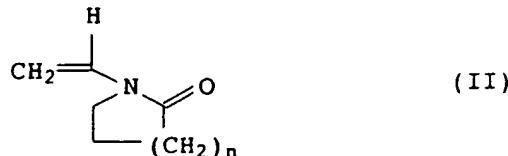


X = O, NR¹,

R¹ = H, C₁-C₈-alkyl,

R² = tert-butyl,

(b) from 5 to 45% by weight of one or more monomers of the formula II



where n = 1 to 3,

(c) from 5 to 40% by weight of a monoethylenically unsaturated monomer having at least one amine-containing group[,

d) from 0 to 5% by weight of a polyalkylene oxide-containing silicone derivative,] where up to 40% by weight, based on (a), (b), and (c)[, and (d)], of the monomer (a) can be replaced by a monomer of the formula I where R² = C₂-C₂₂-alkyl.

2. (amended) A polymer as claimed in claim 1, [obtainable] obtained by free-radical copolymerization of

- (a) from 51 to 65% by weight of the monomer of the formula I,
- (b) from 7 to 39% by weight of the monomer of the formula II,
- (c) from 10 to 30% by weight of the amine-containing monomer.

3. (amended) A polymer as claimed in claim 1, wherein the monomer (a) is tert-butyl acrylate, N-tert-butylacrylamide [and/]or tert-butyl methacrylate.

4. (amended) A polymer as claimed in claim 1, wherein the monomer (b) is vinylpyrrolidone [and/]or vinylcaprolactam.

5. (amended) A polymer as claimed in claim 1, wherein the monomer (c) is dimethylaminoalkyl (meth)acrylate [and/]or dimethylaminoalkyl (meth)acrylamide.

7. (amended) [The use of] A method of using the polymers as claimed in claim 1 [for cosmetic preparations] comprising the step of incorporating into cosmetic preparations the polymers as claimed in claim 1.

8. (amended) The [use] method as claimed in claim 7 wherein the incorporation is made into a [as setting polymers in] hair spray, foam setting compositions, hair mousse, hair gel or shampoos.

10. (amended) A process for preparing the cosmetic preparation as claimed in claim 9, said process comprising [wherein the polymer is] partially or completely neutralizing[ed] said polymer with [using] a monohydric acid[, preferably using a polyhydric acid or a polycarboxylic acid, or is quaternized using a quaternizing

agent].

11. (amended) The process as claimed in claim 10 [A cosmetic preparation as claimed in claim 10,] wherein the polymer is partially or completely neutralized [using] with a phosphoric acid or an acid mixture containing phosphoric acid.

12. (amended) [The use of] A method of using polymers as claimed in claim 16 comprising the step of incorporating said polymers into hair cosmetics [for hair cosmetics].

13. (amended) A hair cosmetic preparation comprising

- (a) from 0.2 to 20% by weight of a polymer as claimed in claim 1,
- (b) from 0 to 10% by weight of a conventional hair-setting polymer,
- (c) from 0 to 1% by weight of a water-dispersible siloxane-containing compound,
- (d) from 30 to 99.5% by weight of a solvent or solvent mixture of alcohol and water,
- (e) from 0 to 60% by weight of a propellant comprising dimethyl ether [and/or propane/] or butane, and
- (f) from 0 to 0.3% by weight of a cosmetically suitable additive.

14. (amended) [The use] The method as claimed in claim 7 [as a constituent in] wherein the cosmetic preparations are cosmetic skin preparations.

15. (amended) [The use] The method as claimed in claim 14, wherein a fatty acid amide is additionally [used] incorporated.

16. (new) The polymer as claimed in claim 1 which has a glass transition temperature of > 25°C and a K value of from 25 to 70.
17. (new) The polymer as claimed in claim 16, wherein the K value is from 35 to 50.
18. (new) The process as claimed in claim 9, wherein said polymer is neutralized with a polyhydric or a polycarboxylic acid.
19. (new) The process as claimed in claim 9, wherein said polymer is quarternized with a quarternizing agent.